Users Guide

Wyse® USB Firmware Tool 1.15

Issue: 092911
PN: 883919-01 Rev. K

Copyright Notices

© 2011, Wyse Technology Inc. All rights reserved.

This manual and the software and firmware described in it are copyrighted. You may not reproduce, transmit, transcribe, store in a retrieval system, or translate into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, any part of this publication without express written permission.

End User License Agreement (“License”)

A copy of the Wyse Technology End User License Agreement is included in the software and provided for your reference only. The License at http://www.wyse.com/license as of the purchase date is the controlling licensing agreement. By copying, using, or installing the software or the product, you agree to be bound by those terms.

Trademarks

The Wyse and PocketCloud logos and Wyse and PocketCloud are trademarks of Wyse Technology Inc. Other product names mentioned herein are for identification purposes only and may be trademarks and/or registered trademarks of their respective companies. Specifications subject to change without notice.

Restricted Rights Legend

You acknowledge that the Software is of U.S. origin. You agree to comply with all applicable international and national laws that apply to the Software, including the U.S. Export Administration Regulations, as well as end-user, end-use and country destination restrictions issued by U.S. and other governments. For additional information on exporting the Software, see http://www.microsoft.com/exporting.

Ordering Information

For availability, pricing, and ordering information in the United States and Canada, call 1-800-GET-WYSE (1-800-438-9973) or visit us at http://www.wyse.com. In all other countries, contact your sales representative.

Contents

Summary of Revisions *v*

1 Introduction *1*

About this Guide *2*
Finding the Information You Need in this Guide *2*
Wyse Technical Support *2*
Related Documentation and Services *2*
Wyse Online Community *2*

2 Supported Devices *3*

3 Installing Wyse USB Firmware Tool *5*

4 How to Copy/Pull and Push Firmware *7*

Procedures *8*

5 How to Update/Push Firmware *13*

Procedures *14*

6 How to Replicate Configured USB Keys *19*

Procedures *19*

A How To Configure Your Device to Boot from a Configured USB Key *21*

Most Users: Using the One-Time Boot Menu to Boot from a Configured USB Key *21*
T50 Users: Using the One-Time Boot Menu to Boot from a Configured USB Key *21*
Reference Information: Boot Details for Supported Devices *22*

B Troubleshooting *25*

USB Keys - Troubleshooting Boot Issues *25*
SanDisk Cruiser Flash Drives - Troubleshooting Partition Issues *25*

This page intentionally blank.

Summary of Revisions

Wyse Technology Inc. 883919-01 Rev. J

The following changes were made to this document since revision H

Reference	Description
Updated figures and workflow	Figures and workflow instructions have been updated to include and describe the new user interface.
Device support updates	T50, X50c, X90m7, X90mw, Xenith Pro, Z90DW, and Z90SW added to "Supported Devices" and throughout the guide.

Wyse Technology Inc. 883919-01 Rev. H

The following changes were made to this document since revision G

Reference	Description
Updated figures and workflow	Figures and workflow instructions have been updated to include and describe the new user interface.
Device support updates	Z90D7 and Z90S7 added to "Supported Devices."

This page intentionally blank.

1 Introduction

The Wyse® USB Firmware Tool™ provides a simple USB imaging solution to help IT and Customer Service staff quickly and easily image supported devices.

The purpose of the Wyse USB Firmware Tool is to configure a bootable USB key for device firmware. The tool allows you to:

- Configure a USB key that will *copy/pull* firmware from a source device and then *push* that copied firmware to other target devices.
- Configure a USB key that will *update/push* firmware that you load on it to target devices.
- Create *replicate/duplicate* configured USB keys (containing the firmware you want to push) for simultaneous usage on target devices (by users in several locations at the same time).

About this Guide

This guide is intended for IT and Customer Service staff that troubleshoot and manage Wyse thin clients, mobile clients, and appliances. It provides the necessary information for using the Wyse USB Firmware Tool to quickly and easily image devices.

Finding the Information You Need in this Guide

You can use either the Search window or Find toolbar to locate a word, series of words, or partial word in an active PDF document. For detailed information on using these features, refer to the Help in your PDF reader.

Wyse Technical Support

To access Wyse technical resources, visit http://www.wyse.com/support. If you still have questions, you can submit your questions using the Wyse Self-Service Center at http://support.wyse.com/selfservice.html or call Customer Support at 1-800-800-WYSE (toll free in U.S. and Canada). Hours of operation are from 6:00 A.M. to 5:00 P.M. Pacific Time, Monday through Friday.

To access international support, visit http://www.wyse.com/global.

Related Documentation and Services

Fact Sheets containing the features of hardware products are available on the Wyse Web site. Go to http://www.wyse.com/products/hardware, click the link for your hardware product, and then click the link for the Fact Sheet.

Administrator and other documentation for your thin client model are available at: http://www.wyse.com/manuals.

Wyse Cloud Software is available on the Wyse Web site at: http://www.wyse.com/products/software.

Wyse Online Community

Wyse maintains an online community where users of our products can seek and exchange information on user forums. Visit the Wyse Online Community forums at: http://community.wyse.com/forum.

2 Supported Devices

Wyse USB Firmware Tool supports the following Wyse cloud clients and other noted devices running:

Tip

If your product is not listed, it is either new or it has reached the End-of-Life phase and is no longer supported.

- **Windows CE (v5.x or v6.x)**:
  CAUTION: For devices running Windows CE, only the *Copy* option (to pull a firmware image from a source device and then push that image to a target device) and the *Replicate* option (to duplicate an already configured USB key containing the contents you want from a source device) are supported (the *Update* option is not supported).
  - C30LE
  - S30
  - V30LE (part numbers 902179-xxL and 902180-xxL)
- **Windows Embedded Standard 2009 (build 641 or later)**:
  - C90LEW
  - R90LW
  - R90LEW
  - V90LEW
  - X90cw
  - X90mw
  - Z90DW
  - Z90SW
- **Windows Embedded Standard 7**:
  - C90LE7
  - R90L7
  - R90LE7
  - X90c7
  - X90m7
  - Z90D7
  - Z90S7
- **Windows XP Embedded (build 587 or later)**:
  - C90LE
  - R90L
  - R90LE
  - V90LE

- **Wyse Enhanced SUSE Linux Enterprise**:
  - C50LE
  - R50L
  - R50LE
  - X50c
- **Wyse Enhanced Ubuntu Linux**:
  - T50
- **Wyse Linux Embedded (v6.x)**:
  - V50LE
- **Wyse Viance Appliance**
- **Wyse Xenith and Xenith Pro**

3 Installing Wyse USB Firmware Tool

In this chapter you will install Wyse USB Firmware Tool onto one of the following supported operating systems:

- Windows XP Professional SP3
- Windows 2003 Server
- Windows Server 2008 R2
- Windows 7 Enterprise (32-bit and 64-bit)
- Windows 7 Ultimate (32-bit and 64-bit)

Caution

You must complete the following procedures as an administrator.

1. Download the *Wyse USB Firmware Tool v1.15_GA.exe* to a folder on your machine (go to http://www.wyse.com/serviceandsupport/support/downloads.asp, in the *Product Downloads Active* list, select **USB Firmware Tool** under *Wyse Imaging Tools*, click **Search**, and then download the *Wyse USB Firmware Tool* software).
2. Double-click the *Wyse USB Firmware Tool v1.15_GA.exe* to execute the file and open the *WinZip Self-Extractor* dialog box.
3. Enter the destination folder you want (for example, **C:\USBFT**) in the **Unzip to folder** box, and then click **Unzip** to extract all files from the *Wyse USB Firmware Tool v1.15_GA.exe* file into the folder. The default directory for the extracted files is **Wyse USB Firmware Tool**.

Caution

It is not recommended to use your desktop for the destination folder as there are several files that will be extracted from the .exe file.

4. After installation, create a shortcut on the desktop for the *Wyse USB Firmware Tool.exe* file (see your operating system documentation).
   You can now use Wyse USB Firmware Tool to configure the USB keys you need to:
   - Pull and push firmware (see "How to Copy/Pull and Push Firmware")
   - Push firmware (see "How to Update/Push Firmware")
   - Make duplicates of a configured USB key (see "How to Replicate Configured USB Keys")

Caution

Windows 7 users must run Wyse USB Firmware Tool as an administrator.

This page intentionally blank.

4 How to Copy/Pull and Push Firmware

In this chapter you will:

1. **Configure a USB Key** - Configure a USB key (that will *copy/pull* firmware from a source device and then *push* that copied firmware to other target devices).
2. **Use the Configured USB Key to Copy/Pull Firmware** - Use the configured USB key for a one-time firmware copy/pull (you will boot from it on a pre-configured *source* device to pull the firmware).
3. **Use the Configured USB Key to Push Firmware** - Use that same configured USB key to push the firmware onto as many *target* devices that you want (you will boot from it on other same model and flash size target devices).

IMPORTANT NOTES:

- **Non-PXE Images** - When a Non-PXE image is used to image, the thin client flash size must be greater than the image size (for example, if a 512 MB image is converted to a Non-PXE Image, then the thin client flash size must be 1 GB to accommodate the boot agent).
- **USB Key Size** - Must be greater than the flash size you are pulling; unless you use the compress feature of the tool to fit your flash contents - be aware that compression can take a significant amount of time depending on the size of your flash contents (USB key size up to 16 GB has been tested—see "USB Keys - Troubleshooting Boot Issues").
- **USB Key is Reformatted** - During the USB key configuration process, the USB key will be reformatted.

Procedures

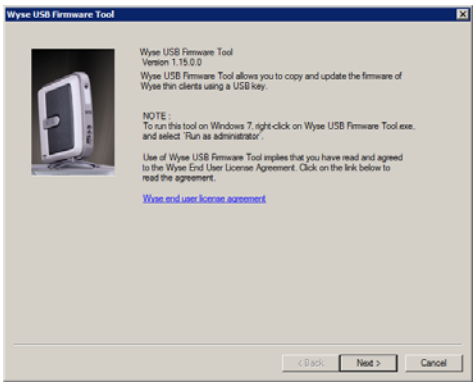
STEP 1: Use Wyse USB Firmware Tool to Configure a Single USB Key that will Pull and Push Firmware

Caution

Complete the configuration procedures as an administrator. For Windows 7 Enterprise and Windows 7 Ultimate, right-click on **Wyse USB Firmware Tool.exe** and select the *Run as administrator* option.

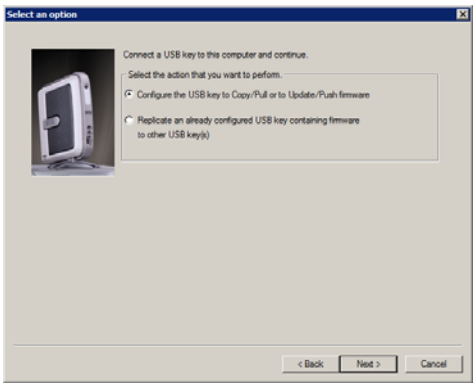
1. Double-click the shortcut on the desktop for the *Wyse USB Firmware Tool.exe* file to run the tool and open the *Wyse USB Firmware Tool* wizard (the welcome page provides the product version and description, and a link to view the Wyse end user license agreement).

Figure 1 Wyse USB Firmware Tool wizard


Wyse USB Firmware Tool
Wyse USB Firmware Tool
Version 1.15.0.0
Wyse USB Firmware Tool allows you to copy and update the firmware of Wyse thin clients using a USB key.
NOTE :
To run this tool on Windows 7, right-click on Wyse USB Firmware Tool.exe, and select 'Run as administrator'.
Use of Wyse USB Firmware Tool implies that you have read and agreed to the Wyse End User License Agreement. Click on the link below to read the agreement.
Wyse end user license agreement
< Back
Next >
Cancel

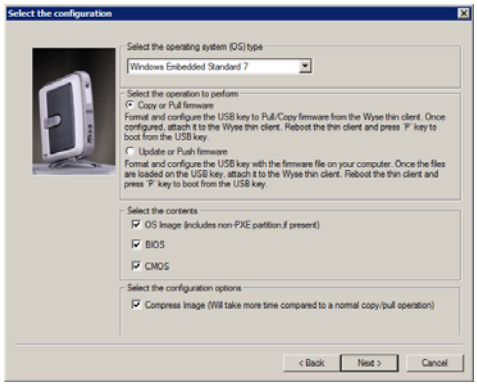
2. Click **Next** to open the **Select an Option** dialog box.

Figure 2 Configuration options


Select an option
Connect a USB key to this computer and continue.
Select the action that you want to perform.
Configure the USB key to Copy/Pull or to Update/Push firmware
Replicate an already configured USB key containing firmware to other USB key(s)
< Back
Next >
Cancel

3. Select the **Configure the USB key to Copy/Pull or to Update/Push firmware** option, and then click **Next** to open the **Select the Configuration** dialog box.

Figure 3 Copy firmware options - Windows Embedded Standard 7 example


Select the configuration
Select the operating system (OS) type
Windows Embedded Standard 7
Select the operation to perform
Copy or Pull firmware
Format and configure the USB key to Pull/Copy firmware from the Wyse thin client. Once configured, attach it to the Wyse thin client. Reboot the thin client and press 'F' key to boot from the USB key.
Update or Push firmware
Format and configure the USB key with the firmware file on your computer. Once the files are loaded on the USB key, attach it to the Wyse thin client. Reboot the thin client and press 'F' key to boot from the USB key.
Select the contents
OS Image (includes non-PXE partition if present)
BIOS
CMOS
Select the configuration options
Compress Image (Will take more time compared to a normal copy/pull operation)
< Back
Next >
Cancel

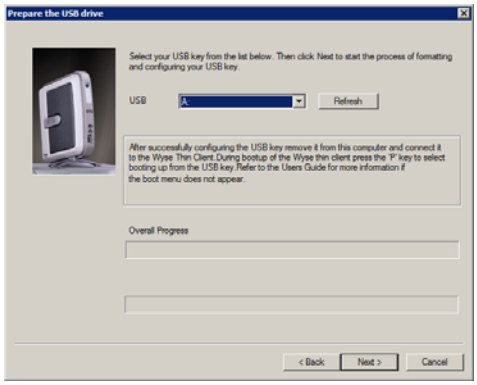
4. Select the operating system option you want and select **Copy or Pull Firmware**.
5. Select as many of the following contents options that you want (it is recommended that you use both BIOS and CMOS together, unless you are sure of the BIOS version and want to only use CMOS):
   - **OS Image** - Configures the USB key to copy only the OS image
   - **BIOS** - Configures the USB key to copy only the BIOS image
   - **CMOS** - Configures the USB key to copy only the CMOS image

Caution

For Z90DW, Z90SW, Z90D7 and Z90S7 devices, CMOS *only* pull is not supported; CMOS data is part of the BIOS. CMOS cannot be pulled independently; both the CMOS and BIOS must be pulled together (CMOS is pulled as a component of the BIOS). If you attempt to pull CMOS *only*, an error message will display.

6. (Optional) Select the **Compress Image** option to reduce a larger image size to fit on the USB key. The compressed image will auto expand when pushed to the device.
7. Click **Next** to open the **Prepare the USB Drive** dialog box.

Figure 4 Prepare USB key for configuration


Prepare the USB drive
Select your USB key from the list below. Then click Next to start the process of formatting and configuring your USB key.
USB
Refresh
After successfully configuring the USB key remove it from this computer and connect it to the Wyse Thin Client. During bootup of the Wyse thin client press the 'F' key to select booting up from the USB key. Refer to the Users Guide for more information if the boot menu does not appear.
Overall Progress
< Back
Next >
Cancel

8. Select the USB key onto which you want the configurations (you can use **Refresh** as needed to recognize an inserted USB key), and then click **Next**. The progress bars show the overall (formatting and configuration) progress and task progress.

9. After configuration, click **Finish** to close the wizard and then remove the configured USB key for use (you will now use the configured USB key on the *source* device *before* using it on a *target* device later).

STEP 2: Use the Configured USB Key to Copy/Pull the Firmware from the Source Device

Tip

In this step, you will boot your source device from the configured USB key so that the USB key will *pull the contents from the source device onto the USB key.*

Caution

Be sure your source device has the configurations you want to pull and use on other target devices.

1. If you are changing the BIOS Setup Utility on the source device (for example, you are not using the recommended one-time boot menu process because your device does not support the one-time boot menu option), *at this time* you must configure the source device to boot from the configured USB key as described in "How To Configure Your Device to Boot from a Configured USB Key." If you are using the one-time boot menu (recommended), you can skip this step.
2. Power off the source device.
3. Attach the configured USB key to the source device.
4. Power on the source device and boot from the configured USB key. If you are using the recommended one-time boot menu process, *at this time* you must follow the one-time boot menu instructions as described in "Most Users: Using the One-Time Boot Menu to Boot from a Configured USB Key" (for most devices, press and hold the **P** key, select the USB drive option that is displayed for your BIOS version, press **Enter**, and follow the process prompts). **CAUTION**: If you are using a Wyse T50, use the instructions in "T50 Users: Using the One-Time Boot Menu to Boot from a Configured USB Key."
5. When booting the source device from the configured USB key (*to pull the contents from the source device onto the USB key*), you will be prompted to continue with the *pull* process. To continue, type **y** and press **Enter**.

Caution

During the *Critical Operation in Progress* message, do not interrupt the process.

6. Once the *pull* process is complete, you will be prompted to remove the key. To remove the key, press **Enter** and remove the USB key. The configured USB key is now ready for *push* usage on *target* devices.

Tip

At this time you can also *replicate/duplicate* the configured USB key (containing the firmware you want to push) for simultaneous usage on target devices (by users in several locations at the same time). See "How to Replicate Configured USB Keys."

STEP 3: Use the Configured USB Key to Push the Firmware onto a Target Device

Tip

In this step, you will boot your target device from the configured USB key so that the USB key will *push the contents from the USB key onto the target device.*

1. If you are changing the BIOS Setup Utility on the target device (for example, you are not using the recommended one-time boot menu process because your device does not support the one-time boot menu option), *at this time* you must configure the target device to boot from the configured USB key as described in "How To Configure Your Device to Boot from a Configured USB Key." If you are using the one-time boot menu (recommended), you can skip this step.
2. Attach the configured USB key to the target device (be sure it is shut down and disconnected from any network).
3. Power on the target device and boot from the configured USB key. If you are using the recommended one-time boot menu process, *at this time* you must follow the one-time boot menu instructions as described in "Most Users: Using the One-Time Boot Menu to Boot from a Configured USB Key" (for most devices, press and hold the **P** key, select the USB drive option that is displayed for your BIOS version, press **Enter**, and follow the process prompts). **CAUTION**: If you are using a Wyse T50, use the instructions in "T50 Users: Using the One-Time Boot Menu to Boot from a Configured USB Key."
4. When booting a target device from the configured USB key (*containing the contents to be pushed to a target device*), you will be prompted to continue with the *push* process. To continue, type **y** and press **Enter**.

Caution

During the *Critical Operation in Progress* message, do not interrupt the process.

5. Once the *push* process is complete, you *must* reboot (press **Enter** and remove the USB key).

Caution

BIOS updates for Z90DW, Z90SW, Z90D7 and Z90S7 devices will happen after the imaging is completed by Merlin (that is, after a reboot). Do not power off the device until *after* the Merlin process completes the imaging *and* the BIOS imaging is completed.

Tip

You can use the configured USB key to push the firmware onto as many target devices as you want (repeat "STEP 3: Use the Configured USB Key to Push the Firmware onto a Target Device").

This page intentionally blank.

5 How to Update/Push Firmware

In this chapter you will:

1. **Ready Your Firmware** - Ready the firmware image you want to use on your target devices.
2. **Configure a USB Key** - Configure a USB key (that will *update/push* the firmware that you load on it to target devices).
3. **Use the Configured USB Key to Push Firmware** - Use that same configured USB key to push the firmware onto as many *target* devices that you want (you will boot from it on other same model and flash size target devices).

Caution

The *Update* option is not supported for devices running Windows CE.

IMPORTANT NOTES:

- **Non-PXE Images** - When a Non-PXE image is used to image, the thin client flash size must be greater than the image size (for example, if a 512 MB image is converted to a Non-PXE Image, then the thin client flash size must be 1 GB to accommodate the boot agent).
- **USB Key Size** - Must be greater than the size of the firmware image plus all other contents you intend to push to target devices; unless you use the compress feature of the tool to fit your total contents - be aware that compression can take a significant amount of time depending on the size of your total contents (USB key size up to 16 GB has been tested—see "USB Keys - Troubleshooting Boot Issues").
- **USB Key is Reformatted** - During the USB key configuration process, the USB key will be reformatted.

Tip

If you are planning to configure the USB key to *update* a firmware image, you must obtain and ready the firmware you want to use for updating *before* you start the *Wyse USB Firmware Tool* wizard. Wyse provides firmware for most devices from its *Software Downloads* Web site at: http://www.wyse.com/serviceandsupport/support/downloads.asp.
CE v6.x firmware must be downloaded from: https://support.wyse.com/OA_HTML/ibuhpage.jsp.
Firmware files are normally made available in .exe or .zip format and must be extracted to a folder that is available to the *Wyse USB Firmware Tool* wizard.

Procedures

STEP 1: Ready the Firmware Image to Your Local Hard Drive

Place the firmware image you want to push to the target devices into a folder that is on the local hard drive of the machine to which you installed USB Firmware Tool (see "Installing Wyse USB Firmware Tool").

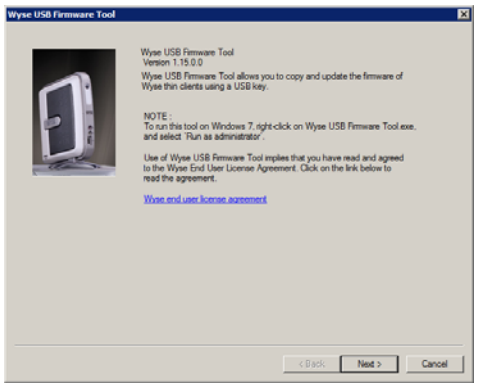
STEP 2: Use Wyse USB Firmware Tool to Configure a Single USB Key that will Push Firmware

Caution

Complete the configuration procedures as an administrator. For Windows 7 Enterprise and Windows 7 Ultimate, right-click on **Wyse USB Firmware Tool.exe** and select the *Run as administrator* option.

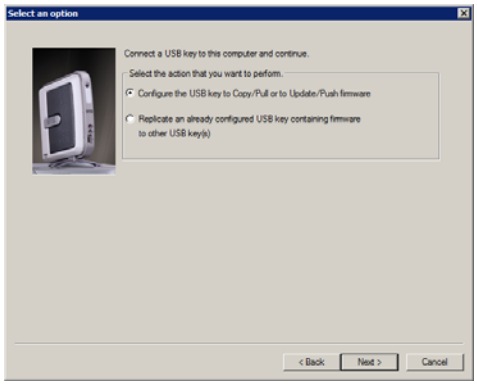
1. Double-click the shortcut on the desktop for the *Wyse USB Firmware Tool.exe* file to run the tool and open the *Wyse USB Firmware Tool* wizard (the welcome page provides the product version and description, and a link to view the Wyse end user license agreement).

Figure 5 Wyse USB Firmware Tool wizard


Wyse USB Firmware Tool
Wyse USB Firmware Tool
Version 1.15.0.0
Wyse USB Firmware Tool allows you to copy and update the firmware of Wyse thin clients using a USB key.
NOTE :
To run this tool on Windows 7, right-click on Wyse USB Firmware Tool.exe, and select 'Run as administrator'.
Use of Wyse USB Firmware Tool implies that you have read and agreed to the Wyse End User License Agreement. Click on the link below to read the agreement.
Wyse end user license agreement
< Back
Next >
Cancel

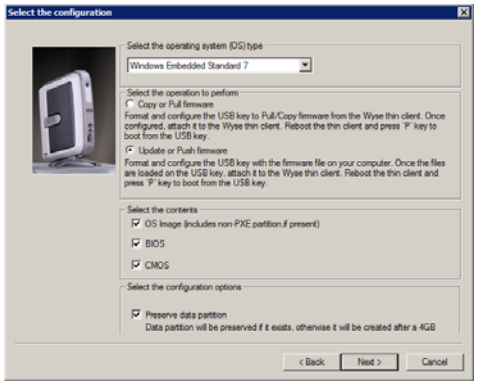
2. Click **Next** to open the **Select an Option** dialog box.

Figure 6 Configuration options


Select an option
Connect a USB key to this computer and continue.
Select the action that you want to perform.
Configure the USB key to Copy/Pull or to Update/Push firmware
Replicate an already configured USB key containing firmware to other USB key(s)
< Back
Next >
Cancel

3. Select the **Configure the USB key to Copy/Pull or to Update/Push firmware** option, and then click **Next** to open the **Select the Configuration** dialog box.

Figure 7 Update firmware options - Windows Embedded Standard 7 example


Select the configuration
Select the operating system (OS) type
Windows Embedded Standard 7
Select the operation to perform
Copy or Pull firmware
Format and configure the USB key to Pull/Copy firmware from the Wyse thin client. Once configured, attach it to the Wyse thin client. Reboot the thin client and press 'P' key to boot from the USB key.
Update or Push firmware
Format and configure the USB key with the firmware file on your computer. Once the files are loaded on the USB key, attach it to the Wyse thin client. Reboot the thin client and press 'P' key to boot from the USB key.
Select the contents
OS Image (includes non-PXE partition,if present)
BIOS
CMOS
Select the configuration options
Preserve data partition
Data partition will be preserved if it exists, otherwise it will be created after a 4GB
< Back
Next >
Cancel

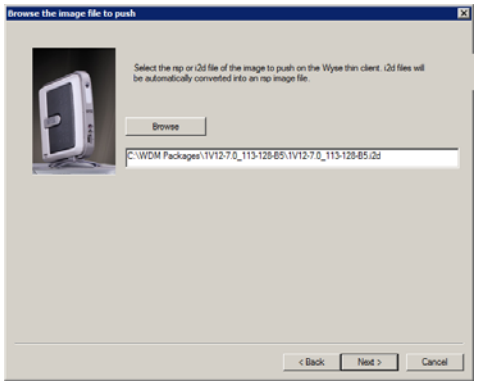
4. Select the operating system option you want and select **Update or Push Firmware** (**IMPORTANT**: This option is not supported for devices running Windows CE).
5. Select as many of the following contents options that you want (it is recommended that you use both BIOS and CMOS together, unless you are sure of the BIOS version and want to only use CMOS):
   - **OS Image** - Configures the USB key to update only the OS image
   - **BIOS** - Configures the USB key to update only the BIOS image
   - **CMOS** - Configures the USB key to update only the CMOS image
6. (Optional) Leave the default-selected **Preserve data partition** check box (recommended in most cases) unless you *do not* want to preserve any existing custom data partition you have on the thin client (outside of the partition used by the firmware).

Tip

This option is only available for use with thin clients using multiple data partitions totalling 4 GB or larger, allowing you to remove the partition used for custom data that is not write filter protected (this is the custom data partition outside of the partition used for write filter protected firmware).

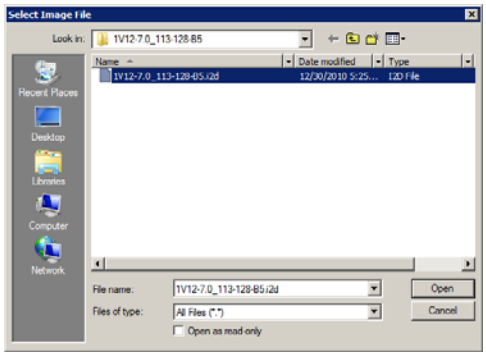
7. Click **Next** to open the browse dialog box.

Figure 8 Browse for image file


Browse the image file to push
Select the rsp or i2d file of the image to push on the Wyse thin client. i2d files will be automatically converted into an rsp image file.
Browse
C:\WDM Packages\1V12-7.0_113-128-B5\1V12-7.0_113-128-B5.i2d
< Back
Next >
Cancel

8. Click **Browse**.

Figure 9 Browse to select image file



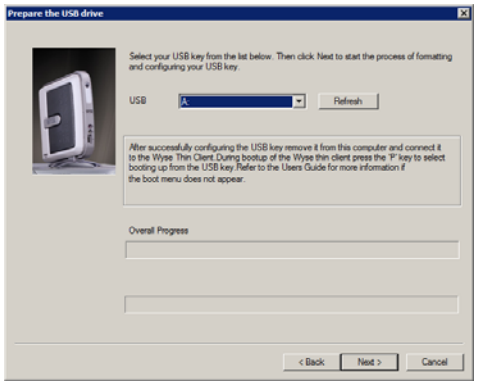
9. Navigate to the folder *on your hard drive* (this is the location you selected in "STEP 1: Ready the Firmware Image to Your Local Hard Drive"), click on the image file to select it (you may need to select the *All Files* option from the *Files of Type* box to display the image file for selection), and then click **Open**.

Tip

Supported image files include .rsp, .i2d, and .xml.

10. In the browse dialog box, click **Next** to open the **Prepare the USB Drive** dialog box.

Figure 10 Prepare USB key for configuration


Prepare the USB drive
Select your USB key from the list below. Then click Next to start the process of formatting and configuring your USB key.
USB
A:
Refresh
After successfully configuring the USB key remove it from this computer and connect it to the Wyse Thin Client. During bootup of the Wyse thin client press the 'P' key to select booting up from the USB key. Refer to the Users Guide for more information if the boot menu does not appear.
Overall Progress
< Back
Next >
Cancel

11. Select the USB key onto which you want the configurations (you can use **Refresh** as needed to recognize an inserted USB key), and then click **Next**. The progress bars show the overall (formatting and configuration) progress and task progress.

12. After configuration, click **Finish** to close the wizard and then remove the configured USB key for use (you will use the configured USB key on *target* devices).

Tip

At this time you can also *replicate/duplicate* the configured USB key (containing the firmware you want to push) for simultaneous usage on target devices (by users in several locations at the same time). See "How to Replicate Configured USB Keys."

STEP 3: Use the Configured USB Key to Push the Firmware onto a Target Device

Tip

In this step, you will boot your target device from the configured USB key so that the USB key will *push the contents from the USB key onto the target device.*

1. If you are changing the BIOS Setup Utility on the target device (for example, you are not using the recommended one-time boot menu process because your device does not support the one-time boot menu option), *at this time* you must configure the target device to boot from the configured USB key as described in "How To Configure Your Device to Boot from a Configured USB Key." If you are using the one-time boot menu (recommended), you can skip this step.
2. Attach the configured USB key to the target device (be sure it is shut down and disconnected from any network).
3. Power on the target device and boot from the configured USB key. If you are using the recommended one-time boot menu process, *at this time* you must follow the one-time boot menu instructions as described in "Most Users: Using the One-Time Boot Menu to Boot from a Configured USB Key" (for most devices, press and hold the **P** key, select the USB drive option that is displayed for your BIOS version, press **Enter**, and follow the process prompts). **CAUTION**: If you are using a Wyse T50, use the instructions in "T50 Users: Using the One-Time Boot Menu to Boot from a Configured USB Key."
4. When booting a target device from the configured USB key (*containing the contents to be pushed to a target device*), you will be prompted to continue with the *push* process. To continue, type **y** and press **Enter**.

Caution

During the *Critical Operation in Progress* message, do not interrupt the process.

5. Once the *push* process is complete, you *must* reboot (press **Enter** and remove the USB key).

Caution

BIOS updates for Z90DW, Z90SW, Z90D7 and Z90S7 devices will happen after the imaging is completed by Merlin (that is, after a reboot). Do not power off the device until *after* the Merlin process completes the imaging *and* the BIOS imaging is completed.

Tip

You can use the configured USB key to push the firmware onto as many target devices as you want (repeat "STEP 3: Use the Configured USB Key to Push the Firmware onto a Target Device").

This page intentionally blank.

6 How to Replicate Configured USB Keys

In this chapter you will *replicate/duplicate* a configured USB key that is currently ready to push firmware.

IMPORTANT NOTES:

- **USB Key is Reformatted** - During the USB key replicate process, the new duplicate USB key will be reformatted.

Tip

It does not matter whether you used the instructions in "How to Copy/Pull and Push Firmware" or "How to Update/Push Firmware" to configure your USB key that is currently ready to *push* firmware. Once you have a configured USB key that is ready to *push* firmware, you can create as many duplicates as you need for simultaneous *push* usage on *target* devices (by users in several locations at the same time).

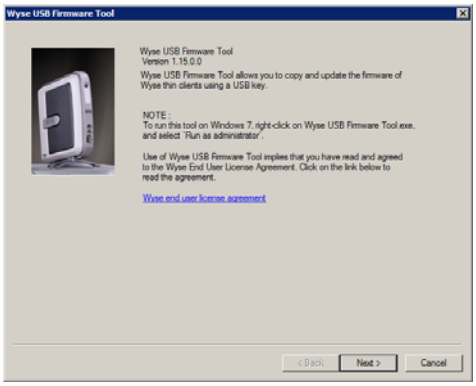
Procedures

Caution

Complete the configuration procedures as an administrator. For Windows 7 Enterprise and Windows 7 Ultimate, right-click on **Wyse USB Firmware Tool.exe** and select the *Run as administrator* option.

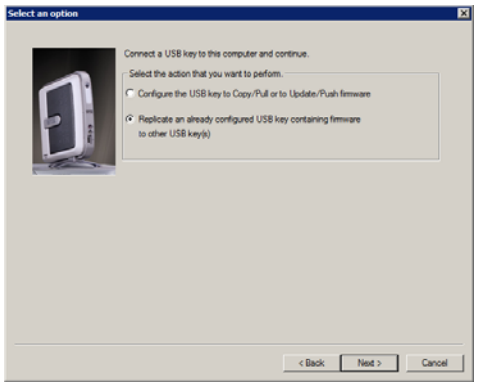
1. Double-click the shortcut on the desktop for the *Wyse USB Firmware Tool.exe* file to run the tool and open the *Wyse USB Firmware Tool* wizard (the welcome page provides the product version and description, and a link to view the Wyse end user license agreement).

Figure 11 Wyse USB Firmware Tool wizard


Wyse USB Firmware Tool
Wyse USB Firmware Tool
Version 1.15.0.0
Wyse USB Firmware Tool allows you to copy and update the firmware of Wyse thin clients using a USB key.
NOTE :
To run this tool on Windows 7, right-click on Wyse USB Firmware Tool.exe, and select 'Run as administrator'.
Use of Wyse USB Firmware Tool implies that you have read and agreed to the Wyse End User License Agreement. Click on the link below to read the agreement.
Wyse end user license agreement
< Back
Next >
Cancel

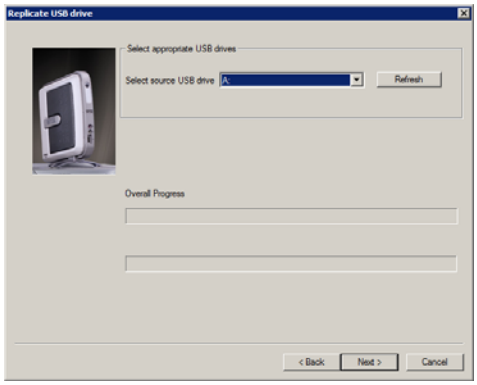
2. Click **Next** to open the **Select an Option** dialog box.

Figure 12 Configuration options


Select an option
Connect a USB key to this computer and continue.
Select the action that you want to perform.
Configure the USB key to Copy/Pull or to Update/Push firmware
Replicate an already configured USB key containing firmware to other USB key(s)
< Back
Next >
Cancel

3. Select the **Replicate an already configured USB key containing firmware to another USB key(s)** option, and then click **Next** to open the **Select Source USB Key** dialog box.

Figure 13 Select Source USB Key



4. Select the source USB key (this is the configured USB key currently ready to *push* firmware) that you want to replicate (you can use **Refresh** as needed to recognize an inserted USB key), and then click **Next**. The progress bars show the overall progress and task progress.
5. After the replicate process is complete, the source USB key is ejected and the **Select target USB drive** dialog box opens.
6. Remove any attached USB key, insert the target USB key (this is the new USB key to which you want the source USB key contents replicated/duplicated), select the target USB key (you can use **Refresh** as needed to recognize an inserted USB key), and then click **Replicate**. The progress bars show the overall (formatting and duplication) progress and task progress.
7. After replication, you can repeat step 6 to create as many duplicates (configured USB keys that are ready to *push* firmware) as required, or click **Finish** to close the wizard.

Tip

After creating the duplicates you need, you can use them on *target* devices to *push* firmware (for example, see "STEP 3: Use the Configured USB Key to Push the Firmware onto a Target Device").

A How To Configure Your Device to Boot from a Configured USB Key

Use the guidelines in this appendix to configure supported devices to boot from a configured USB key (for most users, simply use "Most Users: Using the One-Time Boot Menu to Boot from a Configured USB Key").

Caution

It is highly recommended that you use the one-time boot menu (if available for your device), as it will not modify your default BIOS configurations. Note that **S30**, **X50c**, **X90cw**, and **X90c7** devices *do not* have a one-time boot menu option and you must use the BIOS Setup Utility procedure for these devices as described in "Reference Information: Boot Details for Supported Devices."

Most Users: Using the One-Time Boot Menu to Boot from a Configured USB Key

1. Be sure the device is shut down.
2. Attach the configured USB key to the device.
3. Power on the device.
4. During boot, press and hold the **P** key.
5. Select the USB drive option that is displayed for your BIOS version.
   NOTE: Four USB drive options exist (*USB*, *USB HDD*, *USB HDD0*, and *USB Key*) and you must select the one that is displayed for your BIOS version. If you are still unsure of which option to select for your BIOS version, see "Reference Information: Boot Details for Supported Devices."
6. Press **Enter** and follow the process prompts.

T50 Users: Using the One-Time Boot Menu to Boot from a Configured USB Key

1. Be sure the device is shut down.
2. Attach the configured USB key to the device.
3. Press and hold the **P** key while pressing and holding the *Power* button to power on the device.
4. When the *Activity* light (next to the *Power* button) blinks, release the *Power* button.
5. When the one-time boot menu is displayed, release the **P** key.
6. Select the **USB** drive option, press **Enter**, and then follow the process prompts.

Reference Information: Boot Details for Supported Devices

Depending on your device, use the following guidelines:

- **For C30LE, C50LE, C90LE, C90LEW, C90LE7 thin clients, and Xenith/Xenith Pro zero clients**:
  - To enter and use the one-time boot menu: Attach the configured USB key to the thin client (be sure it is shut down). During boot, press and hold the **P** key. Select the **USB HDD** option (displaying your USB key vendor name) and press **Enter**. Follow the process prompts.
  - To enter and change the BIOS Setup Utility: Attach the configured USB key to the thin client (be sure it is shut down). During boot, press and hold the **Delete** key. Enter the password **Fireport** (this is case sensitive) and press **Enter**. Select the **Hard Disk Boot Priority** option and press **Enter**. Select the **USB HDD** option (displaying your USB key vendor name) and move it to the 1 position by using the + key. Save the BIOS settings and reboot. Follow the process prompts.
- **For R50L, R50LE, R90L, R90LW, R90L7, R90LE, R90LEW, R90LE7, Z90DW, Z90SW, Z90S7, and Z90D7 thin clients**:
  - To enter and use the one-time boot menu: Attach the configured USB key to the thin client (be sure it is shut down). During boot, press and hold the **P** key. Select the **USB HDD** option (displaying your USB key vendor name) and press **Enter**. Follow the process prompts.
  - To enter and change the BIOS Setup Utility: Attach the configured USB key to the thin client (be sure it is shut down). During boot, press and hold the **Delete** key. Enter the password **Fireport** (this is case sensitive) and press **Enter**. Select the **Hard Disk Boot Priority** option and press **Enter**. Select the **USB HDD** option (displaying your USB key vendor name) and move it to the 1 position by using the + key. Save the BIOS settings and reboot. Follow the process prompts.
- **For S30 thin clients** *(no one-time boot menu)*:
  - To enter and change the BIOS Setup Utility: Attach the configured USB key to the thin client (be sure it is shut down). During boot, press and hold the **P** key. Enter the password **Fireport** (this is case sensitive) and press **Enter**. Select the **Hard Disk Boot Priority** option and press **Enter**. Select the **USB** option (displaying your USB key vendor name) and move it to the 1 position by using the + key. Save the BIOS settings and reboot. Follow the process prompts.
- **For T50 thin clients**:
  - To enter and use the one-time boot menu: Attach the configured USB key to the thin client (be sure it is shut down). Press and hold the **P** key while pressing and holding the *Power* button to power on the device. When the *Activity* light (next to the *Power* button) blinks, release the *Power* button. When the one-time boot menu is displayed, release the **P** key. Select the **USB** drive option, press **Enter**, and then follow the process prompts.
  - To enter and change the Boot Order Utility: Attach the configured USB key to the thin client (be sure it is shut down). Press and hold the **Delete** key while pressing and holding the *Power* button to power on the device. When the *Activity* light (next to the *Power* button) blinks, release the *Power* button. When the BIOS password prompt is displayed, type **Fireport** as the password to enter, and then use the *Boot Order* to move *USB* to the top of the list. Save the settings and reboot. Follow the process prompts.

- **For V30LE, V50LE, and V90LE thin clients and Wyse Viance Appliance**:
  - To enter and use the one-time boot menu: Attach the configured USB key to the thin client/appliance (be sure it is shut down). During boot, press and hold the **P** key. Select the **USB HDD0** option and press **Enter**. Follow the process prompts.
  - To enter and change the BIOS Setup Utility: Attach the configured USB key to the thin client/appliance (be sure it is shut down). During boot, press and hold the **Delete** key. Enter the password **Fireport** (this is case sensitive) and press **Enter**. Select the **Advanced BIOS Features** option and press **Enter**. Select the **Hard Disk Boot Priority** option and press **Enter**. Select the **USB HDD0** option (displaying your USB key vendor name) and move it to the 1 position by using the + key. Save the BIOS settings and reboot. Follow the process prompts.
- **For X50c, X90cw, and X90c7 mobile thin clients** (*no one-time boot menu*):
  - To enter and change the BIOS Setup Utility: Attach the configured USB key to the mobile client (be sure it is shut down). During boot, press and hold the **F2** key. Enter the password **Fireport** (this is case sensitive) and press **Enter**. Select the **Boot** option and press **Enter**. Select the **Legacy** option and press **Enter**. Select the **Normal Boot Menu** option and press **Enter**. Select the option displaying your USB key vendor name and move it to the 1 position by using the + key. Save the BIOS settings and reboot. Follow the process prompts.

This page intentionally blank.

B Troubleshooting

Use the information in this appendix for troubleshooting.

USB Keys - Troubleshooting Boot Issues

Due to different manufacturing processes on USB keys (and the variety of them), not all brands have been tested with the Wyse USB Firmware Tool. If you experience problems booting from a configured USB key, it is recommended that you try a different brand of USB key. The following list of USB keys have been successfully tested with the Wyse USB Firmware Tool:

- Kingston Data Traveler 4 GB
- Kingston Data Traveler 8 GB
- Kingston DT Ultimate 32 GB USB 3.0
- SanDisk Cruzer micro 2 GB
- SanDisk Cruzer micro 4 GB
- SanDisk Cruzer micro 8 GB
- SanDisk Cruzer micro 16 GB
- Transcend 16 GB USB 3.0

SanDisk Cruiser Flash Drives - Troubleshooting Partition Issues

Problem: How can I properly use a SanDisk Cruiser flash drive to image supported devices using the Wyse USB Firmware Tool? (KB17735)

Solution: SanDisk flash drives come with support for U3 (for details on U3, see http://www.u3.com). When you initially use these drives, you are prompted to select the use for the drive: *Apps and Storage* or only *Storage*. If you select the *Apps and Storage* option, the drive will create two partitions, one of which is identified as a CD and is a read only partition. This partition sometimes prevents the Wyse USB Firmware Tool to properly prepare the USB key for imaging a device. To resolve this problem you can do one of the following:

- Go to http://www.sandisk.com, search in the SanDisk Knowledge Base for document **2550**, and then follow the instructions in the documentation.
- Go to http://www.sandisk.com/DriverDownload/driverList.asp, select **USB Flash Drives** from the *Select Product Type* list, click **Find Driver**, select **U3 LaunchPad Remover**, click **Continue**, and then download and use the *U3 Launchpad Remover* according to the instructions.

Users Guide

Wyse® USB Firmware Tool 1.15

Issue: 092911

Written and published by:
Wyse Technology Inc., September 2011

Created using FrameMaker® and Acrobat®